

Title (en)

Oil concentrates of polymers with improved viscosity

Title (de)

Öl-Konzentrate von Polymeren mit verbesserter Viskosität

Title (fr)

Polymères concentrés dans l'huile ayant une viscosité améliorée

Publication

EP 0819755 A3 19990217 (EN)

Application

EP 97305038 A 19970709

Priority

US 68355696 A 19960715

Abstract (en)

[origin: EP0819755A2] A composition of about 2 to about 20 percent of a hydrogenated diene/vinyl aromatic block copolymer and a non-ionic surface active agent, soluble in said oil, comprising at least one ester or ether group, in a medium of oil of lubricating viscosity, exhibits reduced viscosity compared with comparable compositions without the surface active agent.

IPC 1-7

C10M 143/10

IPC 8 full level

C10M 143/12 (2006.01); **C10M 157/00** (2006.01); **C10M 161/00** (2006.01)

CPC (source: EP US)

C10M 129/76 (2013.01 - EP); **C10M 143/12** (2013.01 - EP US); **C10M 145/30** (2013.01 - EP); **C10M 145/34** (2013.01 - EP); **C10M 145/36** (2013.01 - EP); **C10M 145/38** (2013.01 - EP); **C10M 149/14** (2013.01 - EP); **C10M 157/00** (2013.01 - EP US); **C10M 161/00** (2013.01 - EP US); **C10M 2205/06** (2013.01 - EP US); **C10M 2207/287** (2013.01 - EP US); **C10M 2207/288** (2013.01 - EP US); **C10M 2207/289** (2013.01 - EP US); **C10M 2209/104** (2013.01 - EP US); **C10M 2209/105** (2013.01 - EP US); **C10M 2209/107** (2013.01 - EP US); **C10M 2209/108** (2013.01 - EP US); **C10M 2209/109** (2013.01 - EP US); **C10M 2215/042** (2013.01 - EP US); **C10M 2215/22** (2013.01 - EP US); **C10M 2215/221** (2013.01 - EP US); **C10M 2215/225** (2013.01 - EP US); **C10M 2215/226** (2013.01 - EP US); **C10M 2215/30** (2013.01 - EP US); **C10M 2217/041** (2013.01 - EP US); **C10N 2070/02** (2020.05 - EP US)

Citation (search report)

- [PX] EP 0732374 A2 19960918 - CAMPBELL DUSSEK LTD [GB]
- [XY] US 3772196 A 19731113 - CLAIR D, et al
- [A] EP 0204587 A2 19861210 - EXXON CHEMICAL PATENTS INC [US]
- [A] US 4036910 A 19770719 - ANDERSON WILLIAM S
- [A] EP 0638632 A2 19950215 - ETHYL PETROLEUM ADDITIVES LTD [GB]
- [A] US 4957649 A 19900918 - RIPPLE DAVID E [US], et al
- [PX] EP 0747466 A1 19961211 - LUBRIZOL CORP [US]
- [Y] EP 0712924 A1 19960522 - LUBRIZOL CORP [US]
- [Y] US 3762888 A 19731002 - KOBER A, et al
- [Y] US 4826615 A 19890502 - ROSSI ALBERT [US], et al
- [Y] US 4970011 A 19901113 - KUWAMOTO HIROSHI [JP], et al
- [Y] US 4990274 A 19910205 - NALESNIK THEODORE E [US]
- [YD] US 4891145 A 19900102 - BROD RAMAH J [GB], et al
- [A] WO 8703890 A1 19870702 - LUBRIZOL CORP [US]
- [A] EP 0411539 A1 19910206 - LUBRIZOL CORP [US]

Cited by

EP2049632A4; US8389451B2; US6369162B1; US6384009B1; US6303550B1; US7250458B2; US7034079B2; WO0024795A1; WO0027956A1; WO0017295A1; WO2004037956A1; WO2013003392A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0819755 A2 19980121; EP 0819755 A3 19990217; EP 0819755 B1 20010613; AU 2861497 A 19980122; AU 722525 B2 20000803; CA 2210429 A1 19980115; DE 69705171 D1 20010719; DE 69705171 T2 20011206; US 5747433 A 19980505

DOCDB simple family (application)

EP 97305038 A 19970709; AU 2861497 A 19970714; CA 2210429 A 19970714; DE 69705171 T 19970709; US 68355696 A 19960715